

Serial No. 10/571,500
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Amendments to the Claims:

The text of all pending claims, (including withdrawn claims) is set forth below. Canceled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (canceled), (withdrawn), (new), (previously presented), or (not entered).

Applicant reserves the right to pursue any canceled claims at a later date.

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1 – 11 (canceled)

12. (currently amended) A gas turbine engine, comprising:
 - a rotationally mounted rotor having a longitudinal axis;
 - an axial compressor arranged coaxially along the rotor that produces a compressed intake fluid flow;
 - a combustion chamber arranged downstream of the compressor which receives the fluid flow and a fuel, and combusts the fluid flow and the fuel to form a hot working medium flow;
 - a turbine that receives and extracts mechanical energy from the hot working medium flow;
 - a rotationally fixed inner casing wherein the hot working medium flows through a passage within the inner casing, the inner casing comprising:
 - a front ring having a collar portion extending in the axial direction arranged coaxially with the rotor, and
 - a rear ring having a collar portion extending in the axial direction arranged coaxially and downstream of the ~~first~~front ring with respect to the direction of flow of the working medium, the ~~two~~front and rear rings forming an annular gap in an area where the collars partially overlap, and

a spring element arranged to seal the annular gap from the hot working medium having a first end, a second end and a spring region arranged between the first and second ends, the first

end secured in a circumferential groove-groove of either the front ring or the rear ring and the second end in intimate contact with a bearing surface of the collar of the other inner casing ring sealing the annular gap from the hot working medium, wherein a width of the circumferential groove is smaller than a width of the spring element first end to provide a secure retention of the spring element in the circumferential groove.

13. (previously presented) The engine as claimed in claim 12, wherein the inner casing diverges conically toward the rotor in the direction of flow.

14. (previously presented) The engine as claimed in claim 12, wherein the front ring has a radially inner collar and the rear ring has a radially outer collar.

15. (previously presented) The engine as claimed in claim 14, wherein the front ring forms the radially outer collar and the rear ring forms the radially inner collar such that the annular gap extends in the direction of flow of the working fluid.

16. (previously presented) The engine as claimed in claim 12, wherein the radial width of the circumferential groove is less than twice the material thickness of the spring seal.

17. (previously presented) The engine as claimed in claim 16, wherein the first end of the spring element is connected to the circumferential groove by welding or soldering.

18. (previously presented) The engine as claimed in claim 12, wherein an annular bearing surface is provided on the radially inner collar on a side opposite the working medium.

19. (previously presented) The engine as claimed in claim 12, wherein the spring seal element has an S-shaped cross section.

20. (previously presented) The engine as claimed in claim 12, wherein a cooling medium exerts a higher pressure on an outer diameter surface of the spring seal element relative to the pressure exerted on the inner diameter side by the hot working medium.

21. (currently amended) A gas turbine hot gas sealing system comprising:

a first component having a collar portion;

a second component having a collar portion adjacent the first component collar portion, the first and second collar portions partially overlapping to form an annular gap, the second component having a circumferential groove open to the annular gap; and

an annular spring seal element arranged to seal the annular gap from a hot gas in the turbine having a first end, a second end and a spring region arranged between the first and second ends, the first end region secured within the circumferential grove-groove and the second end in direct contact with the collar of the first inner casing ring sealing the annular gap from the hot gas, wherein a width of the circumferential groove is smaller than a width of the spring seal element first end to provide a secure retention of the spring seal element in the circumferential groove.

22. (currently amended) The sealing system as claimed in claim 21, wherein the circumferential groove-groove is facing the annular gap.

23. (currently amended) The sealing system as claimed in claim 21, wherein the first end of the spring element is welded or soldered to the circumferential groove-groove.

24. (previously presented) The sealing system as claimed in claim 21, wherein the spring element has an S-shaped cross section.

25. (currently amended) A compliant turbine hot gas seal system, comprising:

a first hot gas component having an annular surface concentric with a centerline of the turbine;

a second hot gas component having a recessed surface arranged proximal and concentric to the annular surface of the first component defining a hot gas gap between the first and second components; and

a seal component having a first and a second portion, the first portion arranged within the recess and the second portion in sliding contact with the annular surface wherein the seal component is pre-stressed in the radial direction and exerts a contact pressure against the annular surface to prevent a flow of hot gas through the hot gas gap, wherein

, wherein a width of the recess is smaller than a width of the spring element first portion to provide a secure retention of the spring element in the circumferential groove.

26. (previously presented) The seal system as claimed in claim 25, wherein the first portion is welded or soldered to the second component.

27. (previously presented) The seal system as claimed in claim 25, wherein the seal element is S-shaped.

28. (previously presented) The seal system as claimed in claim 25, wherein the seal accommodates radial and axial relative motion between the first and second components.